more of the categories in paragraphs (c)(1) through (c)(3) of this section.

(d) Except for transportation by aircraft, when a package contains hazardous materials in two or more of the categories listed in paragraphs (c)(1) through (c)(3) of this section the total quantity required by §172.202(c) of this subchapter to be entered on the shipping paper must be either the aggregate quantity, or the estimated quantity, of all hazardous materials, expressed as net mass.

[64 FR 10779, Mar. 5, 1999, as amended at 64 FR 44428, Aug. 16, 1999; 66 FR 45379, Aug. 28, 2001; 70 FR 56098, Sept. 23, 2005; 71 FR 78633, Dec. 29, 2006]

§173.223 Musk xylene.

(a) Packagings for ''Musk xylene'' or ''5-tert-Butyl-2,4,6-trinitro-m-xylene,'' when offered for transportation or transported by rail, highway, or vessel, must conform to the general packaging requirements of subpart B of part 173, and to the requirements of part 178 of this subchapter at the Packing Group III performance level and may only be transported in the following packagings:

(1) Fiberboard box (4G) with a single inner plastic bag, and a maximum net mass of not more than 50 kg (110 lbs).

(2) Fiberboard box (4G) or fiber drum (1G), with a plastic inner packaging not exceeding 5 kg (11 lbs), and a maximum net mass of not more than 25 kg (55 lbs).

(3) Fiber drum (1G), and a maximum net mass of not more than 50 kg (110 lbs), that may be fitted with a coating or lining.

(b) [Reserved]

[Doc. No. 2002–13658, 68 FR 45035, July 31, 2003]

§173.224 Packaging and control and emergency temperatures for self-reactive materials.

(a) *General.* When the §172.101 table of this subchapter specifies that a Division 4.1 material be packaged in accordance with this section, only packagings which conform to the provisions of this section may be used. Each packaging must conform to the general packaging requirements of subpart B of this part and the applicable requirements of part 178 of this subchapter. Non-bulk packagings must meet Packing Group II performance levels. To avoid unnecessary confinement, metallic non-bulk packagings meeting Packing Group I are not authorized. Self-reactive materials which require temperature control are subject to the provisions of §173.21(f). Packagings required to bear a Class 1 subsidiary label must conform to §§173.60 through 173.62.

(b) *Self-Reactive Materials Table.* The Self-Reactive Materials Table specifies, by technical name, those self-reactive materials that are authorized for transportation and not subject to the approval provisions of §173.124(a)(2)(iii). A self-reactive material identified by technical name in the following table is authorized for transportation only if it conforms to all applicable provisions of the table. The column headings of the Self-Reactive Materials Table are as follows:

(1) *Technical name.* Column 1 specifies the technical name.

(2) *ID number.* Column 2 specifies the identification number which is used to identify the proper shipping name in the §172.101 table.

(3) *Concentration of self-reactive material.* Column 3 specifies the concentration (percent) limitations, if any, in mixtures or solutions for the self-reactive material. Limitations are given as minimums, maximums, or a range, as appropriate. A range includes the lower and upper limits (i.e., ''53–100'' means from, and including, 53 percent to, and including 100 percent).

(4) *Packing method.* Column 4 specifies the highest packing method which is authorized for the self-reactive material. A packing method corresponding to a smaller package size may be used, but a packing method corresponding to a larger package size may not be used. The Table of Packing Methods in §173.225(d) defines the packing methods. Bulk packagings for Type F self-reactive substances are authorized by §173.225(f) for IBCs and §173.225(h) for bulk packagings other than IBCs. Additional bulk packagings are authorized if approved by the Associate Administrator.

(5) *Control temperature.* Column 5 specifies the control temperature in °C. Temperatures are specified only when

temperature controls are required (see § 173.21(f)).

(6) *Emergency temperature.* Column 6 specifies the emergency temperature in °C. Temperatures are specified only when temperature controls are required (see § 173.21(f)).

(7) *Notes.* Column 7 specifies other applicable provisions, as set forth in notes following the table.

SELF-REACTIVE MATERIALS TABLE

Self-reactive substance (1)	Identification No. (2)	Concentration—(%) (3)	Packing method (4)	Control temperature—(°C) (5)	Emergency temperature (6)	Notes (7)
Acetone-pyrogallol copolymer 2-diazo-1-naphthol-5-sulphonate.	3228	100	OP8			
Azodicarbonamide formulation type B, temperature controlled.	3232	<100	OP5			1
Azodicarbonamide formulation type C	3224	<100	OP6			
Azodicarbonamide formulation type C, temperature controlled.	3234	<100	OP6			1
Azodicarbonamide formulation type D	3226	<100	OP7			
Azodicarbonamide formulation type D, temperature controlled.	3236	<100	OP7			1
2,2′-Azodi(2,4-dimethyl-4-methoxyvaleronitrile).	3236	100	OP7	−5	+5	
2,2′-Azodi(2,4-dimethylvaleronitrile)	3236	100	OP7	+10	+15	
2,2′-Azodi(ethyl 2-methylpropionate)	3235	100	OP7	+20	+25	
1,1-Azodi(hexahydrobenzonitrile)	3226	100	OP7			
2,2-Azodi(isobutyronitrile)	3234	100	OP6	+40	+45	
2,2′-Azodi(isobutyronitrile) as a water based paste.	3224	≤50	OP6			
2,2-Azodi(2-methylbutyronitrile)	3236	100	OP7	+35	+40	
Benzene-1,3-disulphonylhydrazide, as a paste.	3226	52	OP7			
Benzene sulphohydrazide	3226	100	OP7			
4-(Benzyl(ethyl)amino)-3-ethoxybenzenediazonium zinc chloride.	3226	100	OP7			
4-(Benzyl(methyl)amino)-3-ethoxybenzenediazonium zinc chloride.	3236	100	OP7	+40	+45	
3-Chloro-4-diethylaminobenzenediazonium zinc chloride.	3226	100	OP7			
2-Diazo-1-Naphthol sulphonic acid ester mixture.	3226	<100	OP7			4
2-Diazo-1-Naphthol-4-sulphonyl chloride	3222	100	OP5			
2-Diazo-1-Naphthol-5-sulphonyl chloride	3222	100	OP5			
2,5-Dibutoxy-4-(4-morpholinyl)-Benzenediazonium, tetrachlorozincate (2:1).	3228	100	OP8			
2,5-Diethoxy-4-morpholinobenzenediazonium zinc chloride.	3236	67–100	OP7	+35	+40	
2,5-Diethoxy-4-morpholinobenzenediazonium zinc chloride.	3236	66	OP7	+40	+45	
2,5-Diethoxy-4-morpholinobenzenediazonium tetrafluoroborate.	3236	100	OP7	+30	+35	
2,5-Diethoxy-4-(phenylsulphonyl)benzenediazonium zinc chloride.	3236	67	OP7	+40	+45	
2,5-Diethoxy-4-(4-morpholinyl)-benzenediazonium sulphate.	3226	100	OP7			
Diethylene glycol bis(allyl carbonate) + Diisopropylperoxydicarbonate.	3237	≥88+≤12	OP8	−10	0	
2,5-Dimethoxy-4-(4-methylphenylsulphon-y)benzenediazonium zinc chloride.	3236	79	OP7	+40	+45	
4-Dimethylamino-6-(2-dimethylaminoethoxy)toluene-2-diazonium zinc chloride.	3236	100	OP7	+40	+45	
4-(Dimethylamino)-benzenediazonium trichlorozincate (-1).	3228	100	OP8			
N,N′-Dinitroso-N, N′-dimethylterephthalamide, as a paste.	3224	72	OP6			

SELF-REACTIVE MATERIALS TABLE—Continued

Self-reactive substance (1)	Identification No. (2)	Concentration—(%) (3)	Packing method (4)	Control temperature—(°C) (5)	Emergency temperature (6)	Notes (7)
N,N′-Dinitrosopentamethylenetetramine ..	3224	82	OP6	.....	.....	2
Diphenyloxide-4,4′-disulphohydrazide	3226	100	OP7	.....	.....	.....
Diphenyloxide-4,4′-disulphonylhydrazide	3226	100	OP7			
4-Dipropylaminobenzenediazonium zinc chloride.	3226	100	OP7	.....	.....	.....
2-(N,N-Ethoxycarbonylphenylamino)-3-methoxy-4-(N-methyl-N-cyclohexylamino)benzenediazonium zinc chloride.	3236	63–92	OP7	+40	+45	.....
2-(N,N-Ethoxycarbonylphenylamino)-3-methoxy-4-(N-methyl-N-cyclohexylamino)benzenediazonium zinc chloride.	3236	62	OP7	+35	+40	.....
N-Formyl-2-(nitromethylene)-1,3-perhydrothiazine.	3236	100	OP7	+45	+50	.....
2-(2-Hydroxyethoxy)-1-(pyrrolidin-1-yl)benzene-4-diazonium zinc chloride.	3236	100	OP7	+45	+50	.....
3-(2-Hydroxyethoxy)-4-(pyrrolidin-1-yl)benzenediazonium zinc chloride.	3236	100	OP7	+40	+45	.....
2-(N,N-Methylaminoethylcarbonyl)-4-(3,4-dimethyl-phenylsulphonyl)benzene diazonium zinc chloride.	3236	96	OP7	+45	+50	.....
4-Methylbenzenesulphonylhydrazide	3226	100	OP7	.....	.....	.....
3-Methyl-4-(pyrrolidin-1-yl)benzenediazonium tetrafluoroborate.	3234	95	OP6	+45	+50	.....
4-Nitrosophenol	3236	100	OP7	+35	+40	.....
Self-reactive liquid, sample	3223	.....	OP2	.....	.....	3
Self-reactive liquid, sample, temperature control.	3233	.....	OP2	.....	.....	3
Self-reactive solid, sample	3224	.....	OP2	.....	.....	3
Self-reactive solid, sample, temperature control.	3234	.....	OP2	.....	.....	3
Sodium 2-diazo-1-naphthol-4-sulphonate	3226	100	OP7	.....	.....	.....
Sodium 2-diazo-1-naphthol-5-sulphonate	3226	100	OP7	.....	.....	.....
Tetramine palladium (II) nitrate	3234	100	OP6	+30	+35	.....

NOTES: 1. The emergency and control temperatures must be determined in accordance with § 173.21(f).
2. With a compatible diluent having a boiling point of not less than 150 °C.
3. Samples may only be offered for transportation under the provisions of paragraph(c)(3) of this section.
4. This entry applies to mixtures of esters of 2-diazo-1-naphthol-4-sulphonic acid and 2-diazo-1-naphthol-5-sulphonic acid.

(c) *New self-reactive materials, formulations and samples.* (1) Except as provided for samples in paragraph (c)(3) of this section, no person may offer, accept for transportation, or transport a self-reactive material which is not identified by technical name in the Self-Reactive Materials Table of this section, or a formulation of one or more self-reactive materials which are identified by technical name in the table, unless the self-reactive material is assigned a generic type and shipping description and is approved by the Associate Administrator under the provisions of § 173.124(a)(2)(iii).

(2) Except as provided by an approval issued under § 173.124(a)(2)(iii), intermediate bulk and bulk packagings are not authorized.

(3) *Samples.* Samples of new self-reactive materials or new formulations of self-reactive materials identified in the Self-Reactive Materials Table in paragraph (b) of this section, for which complete test data are not available, and which are to be transported for further testing or product evaluation, may be assigned an appropriate shipping description for Self-reactive materials Type C, packaged and offered for transportation under the following conditions:

(i) Data available to the person offering the material for transportation must indicate that the sample would pose a level of hazard no greater than that of a self-reactive material Type B and that the control temperature, if any, is sufficiently low to prevent any

dangerous decomposition and sufficiently high to prevent any dangerous phase separation;

(ii) The sample must be packaged in accordance with packing method OP2;

(iii) Packages of the self-reactive material may be offered for transportation and transported in a quantity not to exceed 10 kg (22 pounds) per transport vehicle; and

(iv) One of the following shipping descriptions must be assigned:

(A) Self-reactive, liquid, type C, 4.1, UN3223.

(B) Self-reactive, solid, type C, 4.1, UN3224.

(C) Self-reactive, liquid, type C, temperature controlled, 4.1, UN3233.

(D) Self-reactive, solid, type C, temperature controlled, 4.1, UN3234.

[Amdt. 173–241, 59 FR 67511, Dec. 29, 1994, as amended by Amdt. 173–242, 60 FR 26806, May 18, 1995; Amdt. 173–246, 60 FR 49110, Sept. 21, 1995; Amdt. 173–256, 61 FR 51338, Oct. 1, 1996; Amdt. 173–261, 62 FR 24734, 24735, May 6, 1997; 62 FR 45702, Aug. 28, 1997; 64 FR 10779, Mar. 5, 1999; 65 FR 58630, Sept. 29, 2000; 66 FR 33431, June 21, 2001; 66 FR 45379, Aug. 28, 2001; 68 FR 45035, July 31, 2003; 69 FR 76159, Dec. 20, 2004; 71 FR 78633, Dec. 29,2006]

§ 173.225 Packaging requirements and other provisions for organic peroxides.

(a) *General.* When the § 172.101 table specifies that an organic peroxide must be packaged under this section, the organic peroxide must be packaged and offered for transportation in accordance with the provisions of this section. Each packaging must conform to the general requirements of subpart B of part 173 and to the applicable requirements of part 178 of this subchapter. Non-bulk packagings must meet Packing Group II performance levels. To avoid unnecessary confinement, metallic non-bulk packagings meeting Packing Group I are not authorized. No used material, other than production residues or regrind from the same production process, may be used in plastic packagings. Organic peroxides that require temperature control are subject to the provisions of § 173.21(f). When an IBC or bulk packaging is authorized and meets the requirements of paragraph (f) or (h) of this section, respectively, lower control temperatures than those specified for non-bulk packaging may be required. An organic peroxide not identified in paragraph (c), (e), or (g) of this section by technical name, or not assigned to a generic type in accordance with the provisions in paragraph (b)(3) of this section, must conform to the provisions of paragraph (c) of § 173.128.

(b) *New organic peroxides, formulations and samples.* (1) Except as provided for samples in paragraph (b)(2) of this section, no person may offer for transportation an organic peroxide that is not identified by technical name in the Organic Peroxides Table, Organic Peroxide IBC Table, or the Organic Peroxide Portable Tank Table of this section, or a formulation of one or more organic peroxides that are identified by technical name in one of those tables, unless the organic peroxide is assigned a generic type and shipping description and is approved by the Associate Administrator under the provisions of § 173.128(d) of this subchapter.

(2) *Samples.* Samples of new organic peroxides or new formulations of organic peroxides identified in the Organic Peroxides Table in paragraph (c) of this section, for which complete test data are not available, and that are to be transported for further testing or product evaluation, may be assigned an appropriate shipping description for organic peroxide Type C, packaged and offered for transportation, under the following conditions:

(i) Data available to the person offering the material for transportation must indicate that the sample would pose a level of hazard no greater than that of an organic peroxide Type B and that the control temperature, if any, is sufficiently low to prevent any dangerous decomposition and sufficiently high to prevent any dangerous phase separation;

(ii) The sample must be packaged in accordance with packing method OP2, for a liquid or solid, respectively;

(iii) Packages of the organic peroxide may be offered for transportation and transported in a quantity not to exceed 10 kg (22 pounds) per transport vehicle; and

(iv) One of the following shipping descriptions must be assigned:

(A) Organic peroxide Type C, liquid, 5.2, UN 3103;